



B	Overexpression in OFT-ECs	Equal expression	
	Angiogenic factor (AGGF1) Angiomotin (AMOT) Angiogenin (ANG) Angiopoietin 1 (ANGPT1) Angiopoietin 2 (ANGPT2) Brain-specific angiogenesis inhibitor 1 (BAL1) Bone morphogenetic protein (BMP2) Chemokine CCL15 Chemokine CCL2 CD55 Chromogranin A (CHGA) Collagen type IV, $\alpha$ 3 (COL4A3) Colony stimulating factor 3 (CSF3) Chemokine CXCL10 Chemokine CXCL11 Chemokine CXCL12 Chemokine CXCL13 Chemokine CXCL14 Chemokine CXCL 2 Chemokine CXCL 3 Chemokine CXCL 5 Chemokine CXCL 9 Thymidine phosphorylase (TYMP) Epiregulin (EREG) Fibroblast growth factor 1 (FGF1) Fibroblast growth factor (FGF13) Fibroblast growth factor binding protein 1 (FGFBP1) C-fos induced growth factor (FIGF) Fibronectin 1 (FN1) Granulin (GRN)	Gastrin-releasing peptide (GRP) Hepatocyte growth factor (HGF) Interferon $\alpha$ 1 (IFNA1) Interferon $\beta$ 1 (IFNB1) Interferon $\gamma$ (IFNG) Interleukin 10 (IL10) Interleukin 12A (IL12A) Interleukin 12B (IL12B) Interleukin 17F (IL17F) Interleukin 6 (IL6) Interleukin 8 (IL8) Kit ligand (KITLG) Kallikrein-related peptidase 3 (KLK3) Leptin (LEP) Natriuretic peptide B (NPPB) Natriuretic peptide receptor A (NPR1) Platelet factor 4 (PF4) Plasminogen (PLG) Pro-platelet basic protein (PPBP) Prolactin (PRL) Prokineticin 1 (PROK1) Pleiotrophin (PTN) Stabilin 1 (STAB1) Serpine peptidase inhibitor, Clade C1 (SERPINC1) Serpine peptidase inhibitor, Clade F1 (SERPINF1) Serpine peptidase inhibitor, Kazal type 5 (SPINK5) Transforming growth factor A (TGFA) Transforming growth factor B1 (TGFB1) Angiopoietin receptor TIE1 TIMP metalloproteinase inhibitor 3 (TIMP3) Tumor necrosis factor (TNF) Vascular endothelial growth factor A (VEGFA)	Collagen type XVIII, $\alpha$ 1 (COL18A1) Chemokine (CXCL6) EGF-like repeats and discoidin I-like domains 3 (EDIL3) Basic fibroblast growth factor (FGF2) Follistatin (FST) Midkine (MDK) Platelet-derived growth factor B (PDGFB) Platelet-derived growth factor D (PDGFD) Placental growth factor (PGF) Ribonuclease/angiogenin inhibitor 1 (RNH1) TIMP inhibitor 1 (TIMP1) TIMP inhibitor 2 (TIMP2)
		<b>Overexpression in OECs</b>	
		CD59 Serpine peptidase inhibitor, clade E1 (SERPINE 1) Thrombospondin 1 (THBS 1)	

**Supplementary information, Figure S2** Human cardiac endothelial cells express more angiocrine factors than non-cardiac cord blood-derived endothelial cells.

(A) Correlation of angiocrine gene expression between qPCR data obtained from the purified CD144<sup>+</sup>CD31<sup>+</sup> ECs from the outflow tract of human fetal hearts at 10 weeks of gestation (OFT-ECs) and the non-cardiac, human cord blood-derived outgrowth endothelial cells (OECs) (n=5).  
(B) Lists of angiocrine genes upregulated, equally expressed or downregulated in the outflow tract of human fetal hearts at 10 weeks of gestation compared to the non-cardiac, human cord blood-derived OECs.